

## ABSTRACT OF THE DISCLOSURE

A system and method of controlling a bi-directional switching operation for a synchronous transfer mode (STM-1) signal transmission line of an asynchronous transfer mode (ATM) switch is disclosed. The system and method provide a rapid bi-directional switching operation through a 1+1 structure, being compatible with a 1+N structure, using MSP (Multiplex Section Protection) protocol. The process includes determining whether a signal fail has occurred, determining whether a priority of the signal fail is higher than that of a current signal fail determining whether a target station uses the same protocol as a source station if the priority of the signal fail is higher and performing a switching operation and transmitting a switching notification signal to the target station if the same protocol is used by the target station.